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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,064	10/18/2001	Hans D. Baumann	FCW-003	3887
959	7590	07/19/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP.			COMPTON, ERIC B	
28 STATE STREET			ART UNIT	
BOSTON, MA 02109			PAPER NUMBER	

3726

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/042,064

Applicant(s)

BAUMANN, HANS D.

Examiner

Eric B. Compton

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 13-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 14, 2004.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. 3,754,731 to Mackal et al ("Mackal").

Regarding claim 1, Mackal discloses a method of connecting and locking a stem (10) to a valve plug (11), comprising the steps of:

disposing the stem in a passage formed in the valve plug; see Figure 5, and  
deforming an end portion of the stem to permanently non-rotatably lock the stem within the passage of the valve plug. See Figure 6.

Regarding claim 3, Mackal discloses the step of deforming comprises pressing a coining device into the passage to engage with an end portion of the stem to configure the stem for permanent non-rotational mounting within the valve plug. See Figures 5-7.

Regarding claim 4, Mackal discloses a cavity is disposed in the end portion of the stem for guiding the coining device.

Regarding claim 5, Mackal discloses the coining device further comprises a shank having a tip disposed at one end of the shank, wherein the tip has a taper. See Figure 8; Col. 5, line 11.

Regarding claim 6, Mackal discloses the tip further comprises at least one land (64, 67).

Regarding claim 7, Mackal discloses the at least one land (64) is substantially rectilinear in shape. See Figure 8.

Regarding claim 9, Mackal discloses the at least one land (67) is at least partially curved in shape.

Regarding claims 10-11, Mackal discloses the method further comprises a step of deforming the end portion of the stem to form at least one radial feature extending, e.g. "petals" from an axis of the stem. See Col. 4, lines 50-60. The configuration forms a "keying" engagement to prevent rotation. See *Id.*; Col. 1, lines 6-7.

Regarding claim 12, Mackal discloses the reference discloses a plurality of "petal." See *Id.*, and Figure 9 shows six petals. Thus, at least three radial features are shown.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Mackal.

AAPA, as found on page 1 and Figure 1 of the specification, discloses a conventional valve device in which the stem is threaded in a passage in a plug and connected with a pin.

However, the reference does not disclose deforming an end portion of the stem to permanently non-rotatably lock the stem within the passage of the valve plug.

Mackal discloses a method of connecting and locking a stem (10) to a valve plug (11), comprising the steps of:

disposing the stem in a passage formed in the valve plug; see Figure 5, and deforming an end portion of the stem to permanently non-rotatably lock the stem within the passage of the valve plug. See Figure 6.

Regarding claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the valve of AAPA by deforming an end portion of the stem to permanently non-rotatably lock the stem within the passage of the valve plug, in light of the teachings of Mackal, in order to better form a seal between the two members. See Col. 4, lines 7-11.

Regarding claim 2, AAPA discloses the passage has an internal thread suitable for threadingly receiving the stem.

Regarding claim 3, Mackal discloses the step of deforming comprises pressing a coining device into the passage to engage with an end portion of the stem to configure the stem for permanent non-rotational mounting within the valve plug. See Figures 5-7.

Regarding claim 4, Mackal discloses a cavity, e.g., channel is disposed in the end portion of the stem for guiding the coining device.

Regarding claim 5, Mackal discloses the coining device further comprises a shank having a tip disposed at one end of the shank, wherein the tip has a taper. See Figure 8; Col. 5, line 11.

Regarding claim 6, Mackal discloses the tip further comprises at least one land (64, 67).

Regarding claim 7, Mackal discloses the at least one land (64) is substantially rectilinear in shape. See Figure 8.

Regarding claim 8, AAPA/Mackal do not disclose this feature. However, it would have been obvious to one having ordinary skill in the art at the time of invention that it is an obvious matter of design choice, whether to provide one uniform or non-uniform features, since both features prohibit rotation.

Regarding claim 9, Mackal discloses the at least one land (67) is at least partially curved in shape.

Regarding claims 10-11, Mackal discloses the method further comprises a step of deforming the end portion of the stem to form at least one radial feature extending,

e.g. "petals" from an axis of the stem. See Col. 4, lines 50-60. The configuration forms a "keying" engagement to prevent rotation. See *Id.*; Col. 1, lines 6-7.

Regarding claim 12, Mackal discloses the reference discloses a plurality of "petal." See *Id.*, and Figure 9 shows six petals. Thus, at least three radial features are shown.

### ***Prior Art References***

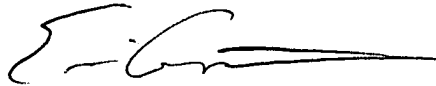
The prior art references listed on the enclosed PTO-892, but not used in a rejection of the claims, are cited for their teachings of forming valves.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter B. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Eric Compton', with a long horizontal flourish extending to the right.

Eric Compton  
Patent Examiner